

No. 877,412.

PATENTED JAN. 21, 1908.

G. H. DAVIS.
FRICTIONAL CURTAIN HOLDING DEVICE.

APPLICATION FILED JUNE 8, 1901.

Fig. 1.

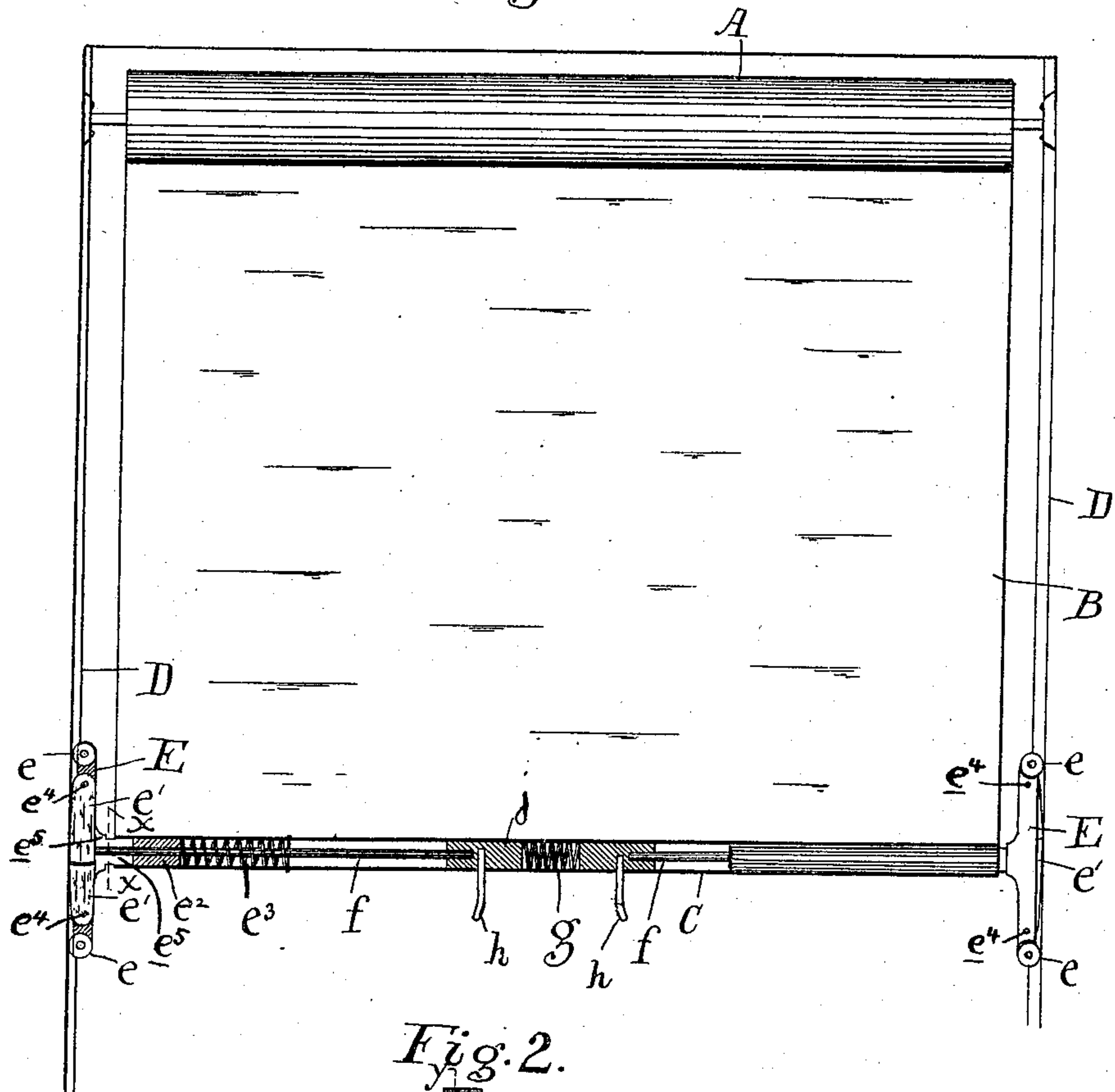
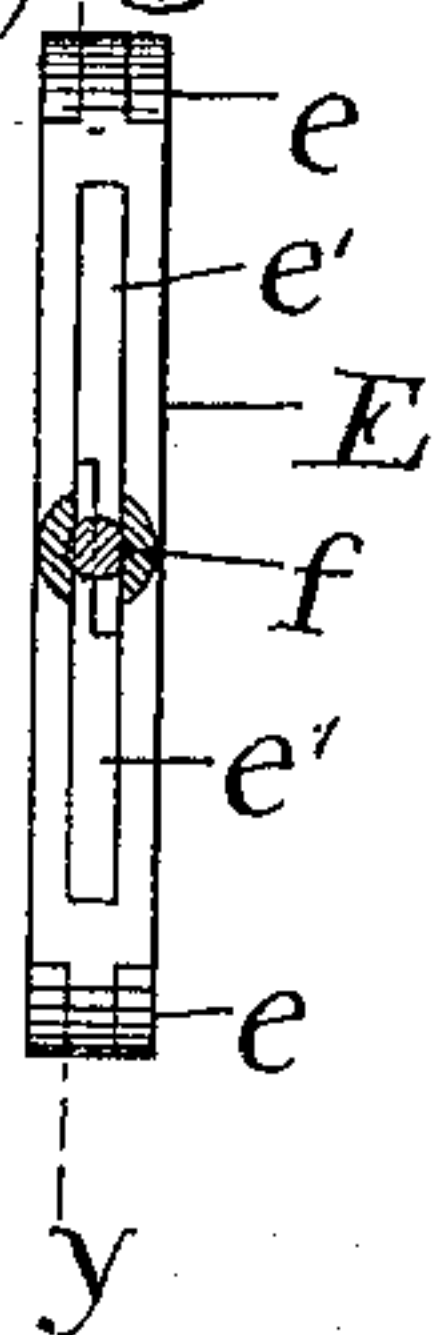


Fig. 2.



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UNITED STATES PATENT OFFICE.

GEORGE H. DAVIS, OF PORTLAND, MAINE, ASSIGNOR TO CURTAIN SUPPLY COMPANY, OF NEWARK, NEW JERSEY, A CORPORATION OF NEW JERSEY.

FRictional CURTAIN-HOLDING DEVICE.

No. 877,412.

Specification of Letters Patent.

Patented Jan. 21, 1908.

Application filed June 8, 1901. Serial No. 63,734.

To all whom it may concern:

Be it known that I, GEORGE H. DAVIS, a citizen of the United States of America, and a resident of Portland, Cumberland county, State of Maine, have invented certain new and useful Improvements in Frictional Curtain-Holding Devices, of which the following is a specification.

My invention relates to a friction holding device for a spring roller curtain such as are commonly used for cars &c. of that class wherein a vertically elongated friction head on the end of the curtain stick is pressed against the casing to hold the curtain against the upward pull of the spring roller.

The present invention relates particularly to the means by which the frictional portion of the head is applied and released and the means by which the head is prevented from tilting or escaping from the groove in which it runs and these features will be hereinafter fully set forth and claimed.

The invention is illustrated by means of the accompanying drawing which shows a spring roller curtain provided with a frictional holding device constructed according to my invention as I prefer to make it.

In the drawing, Figure 1 is a front view with a portion in section on the line *yy* of Fig. 2 and Fig. 2 is a section on *xx* of Fig. 1.

A represents the spring roller, B the curtain, D the casing provided with the usual vertical grooves and C is the curtain stick preferably tubular in form. The vertically elongated friction head E, one on each end of the curtain stick, is connected with the end of the curtain stick and it has in each end an anti-friction roll *e* which bear normally against the casing in the bottom of the groove.

In order to keep the head always in contact with the casing whatever variations may exist in the width of the window frame, I form a shank *e*² in the center of the head, this shank fitting into the end of the hollow curtain stick and being pressed outwardly by a spring *e*³. The action of the spring *e*³ thus always keeps the head in contact with the casing so that the anti-friction rolls always have a bearing against the bottom of the groove.

Friction is applied by means of friction blocks as *e'* pivoted by one end to the head and having the free end pressed outwardly against the casing, preferably by spring

mechanism which is independent of that which operates the head proper.

As herein shown, I make use of two friction blocks in each of the two heads, each pivoted by one of its ends to one end of the head and in a recess *e*⁵ formed for this purpose, the free ends of the blocks overlapping at the center of the head as shown in Fig. 2. The recess in which the blocks *e'* lie is extended a portion of the way into the shank *e*² so that the blocks may swing freely inward. They are pressed outward as here shown, by means of a rod *f* which extends from the head to the center of the hollow curtain stick, passing through the center of the shank *e*².

The outer end of each rod abuts on the backs of the two over-lapping blocks and the inner end is secured to a sliding block *j* to which is affixed an operating handle *h*.

A suitable spring is provided for forcing outward the rods *f* and as here shown this spring *g* is located between the inner ends of the two sliding blocks so that it presses outward in both directions.

It will be seen that when the blocks *e'* are pressed outward they bear directly against the bottom of the groove in the casing and as the spring pressure is exerted directly on their free ends by the rod *f* they are independent of the position of the head proper, that is, the head is pressed against the casing by one spring and the block *e'* by another. Thus when the pressure on the blocks is relieved by pinching the handles *h* together the head will run freely up and down as the rolls *e* bear against the casing and when the pressure is again applied the head is held by the friction of the blocks.

If the curtain stick is tilted out of a horizontal position one of the rolls *e* has a bearing and the tendency is for the head to quickly resume its normal position.

A curtain fixture constructed according to this invention will run easily up and down and be difficult to remove from its grooves.

I claim:

1. In a friction curtain holding device, the combination with the spring roller, curtain and curtain stick, of a vertically elongated friction head on the end of the curtain stick, anti-friction rolls on the ends of said head adapted to run normally in

contact with the window casing, a pair of friction blocks pivoted at opposite ends of the said head and having their free ends adjacent and means for forcing the free ends of said blocks outward against the casing.

2. In a friction holding curtain device, the combination with the spring roller, curtain and curtain stick, of a vertically elongated friction head on the end of the curtain stick, anti-friction rolls on the ends of said head adapted to run normally in contact with the window casing, a pair of friction blocks pivoted at opposite ends of said head and having their free ends overlapping each other and a spring pressed rod for forcing the free ends of the blocks outward against the casing.

3. In a friction curtain holding device, the combination with the spring roller and curtain, of a hollow curtain stick, a vertically elongated friction head having a shank fitting said hollow curtain stick, anti-friction rolls on the ends of said head, a friction block pivoted by one end to said head, a spring pressed rod acting independently of said head for pressing the free end of the block outward and a spring for pressing said head outward.

4. In a holding device for a spring actuated shade, the combination with a stick, of a head on the stick, two shoes pivotally secured in the head and a spring for forcing the free ends of both the shoes outward.

5. In a friction curtain holding device, the combination with the spring roller, curtain, and curtain stick, of a vertically elongated friction head on the end of the curtain stick, anti-friction rollers on the ends of said head adapted to run normally in contact with the window casing, means for retaining the rollers in contact with the window casing, a friction block pivoted at one end to said head, a spring adapted to thrust said block against the casing, and means for retracting the spring whereby to release the block from frictional contact.

6. In a friction curtain holding device, the combination of the spring roller, and the curtain with a hollow curtain stick, a vertically elongated friction head having a shank fitting into the end of the curtain stick, a friction block pivoted to said head, a rod for pressing said friction block normally against the window casing, a spring acting against the inner end of said rod to press it outward and a spring acting against the said shank for pressing the head outward independently of the friction block.

7. In a curtain fixture, the combination with a window frame, of a spring-actuated shade and shade stick, heads carried by the stick, springs tending to force said heads

outwardly, rollers carried by said heads, and friction shoes pivotally connected at one end to said heads, and means whereby said rollers and said shoes are adapted to normally contact with the window frame, including a resilient support for said head, and a resilient support for the free end of said shoe.

8. In a curtain fixture, the combination with heads, rollers carried by said heads, friction shoes pivotally connected with said heads intermediate the rollers and means whereby said rollers and said shoes are adapted to normally make contact with the window frame, said means including thrusting springs acting upon said heads, and spring actuated rods acting upon said shoes.

9. In a curtain holding device the combination with a shade stick of a guide yieldably connected therewith, anti-frictional bearings for the guide, a friction holding device in said guide intermediate said bearings, and means for mounting said friction holding device so that the same may have an independent, yielding pivotal movement toward and from the edge of the guide.

10. In a friction curtain holding device, the combination with a spring-roller curtain-stick, of a friction head on the end of the stick, spring means for normally forcing the head outwardly, a friction block pivoted at one end to said head and free at its opposite end, a rod arranged to contact with said free end and spring actuated means for said rod operable independent of said first mentioned spring means to force the block normally outward.

11. In a curtain holding device, the combination with a shade stick, of heads carried thereby, springs for normally thrusting said heads outwardly, curved bearings at the ends of the heads adapted to normally contact with the window frame, a friction member connected to the head between said end bearings, and a spring actuated rod bodily movable relative to but arranged so as to normally exert outward pressure on said friction member.

12. The combination with a shade stick, of a guide, a spring between the stick and guide, a frictional device for said guide comprising a pivoted frictional block, a rod bodily movable relative to said block, and a yieldable bearing for the rod whereby it is movable independent of the guide into engagement with the block for exerting outward pressure thereon.

Signed at Portland this 29th day of May, 1901.

GEORGE H. DAVIS.

Witnesses:

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